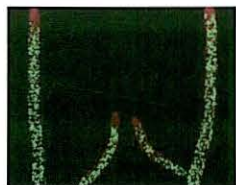
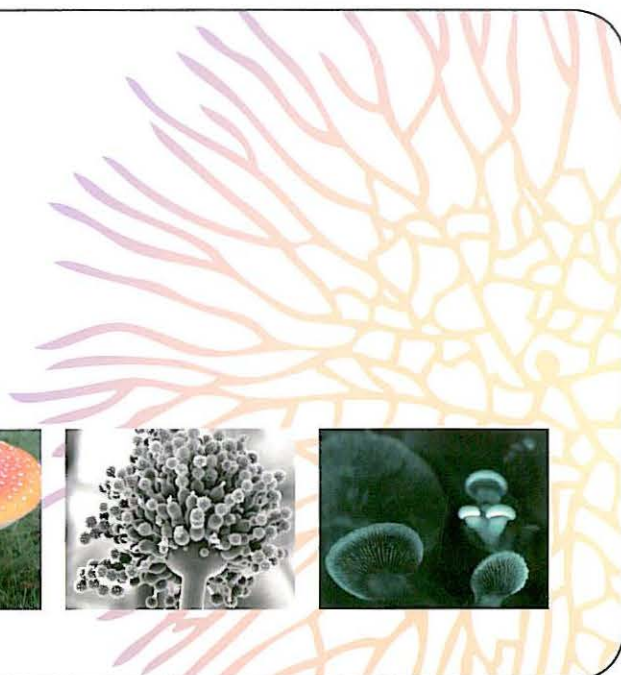


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Liquid chromatography for multimycotoxin detection for filamentous fungi identification

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Mycotoxins are secondary metabolites produced by specific filamentous fungi. Among the most relevant mycotoxigenic producer fungi are some *Aspergillus* species such as the ones belonging to the *Aspergillus* section *Flavi*. These are known to produce the highly carcinogenic aflatoxins (AFB₁, AFB₂; AFG₁ and AFG₂) and cyclopiazonic acid (CPA) in agricultural commodities. Besides the issues related to food safety, aflatoxins and CPA analysis can also be routinely used for identification purposes within the *Aspergillus* section *Flavi*, since the various species exhibit different mycotoxin profiles. Aflatoxins are mainly produced by some strains of *Aspergillus flavus* and *Aspergillus nomius* and by all strains of *Aspergillus parasiticus*, whereas CPA is mainly produced by *Aspergillus flavus* strains. The aim of this study was to develop a rapid HPLC method that could detect simultaneously both these mycotoxins. For this purpose twenty two strains belonging to *Aspergillus* section *Flavi* were tested for aflatoxins and CPA production. Extracts were analysed using a HPLC system. The tested methodology allowed the separation of CPA from AFGs and AFBs in a HPLC single run and proved to be a useful tool for helping in the identification of the strains in study. Data from these assays will be presented and discussed.

Keywords: aflatoxins, cyclopiazonic acid, HPLC, *Aspergillus* section *Flavi*